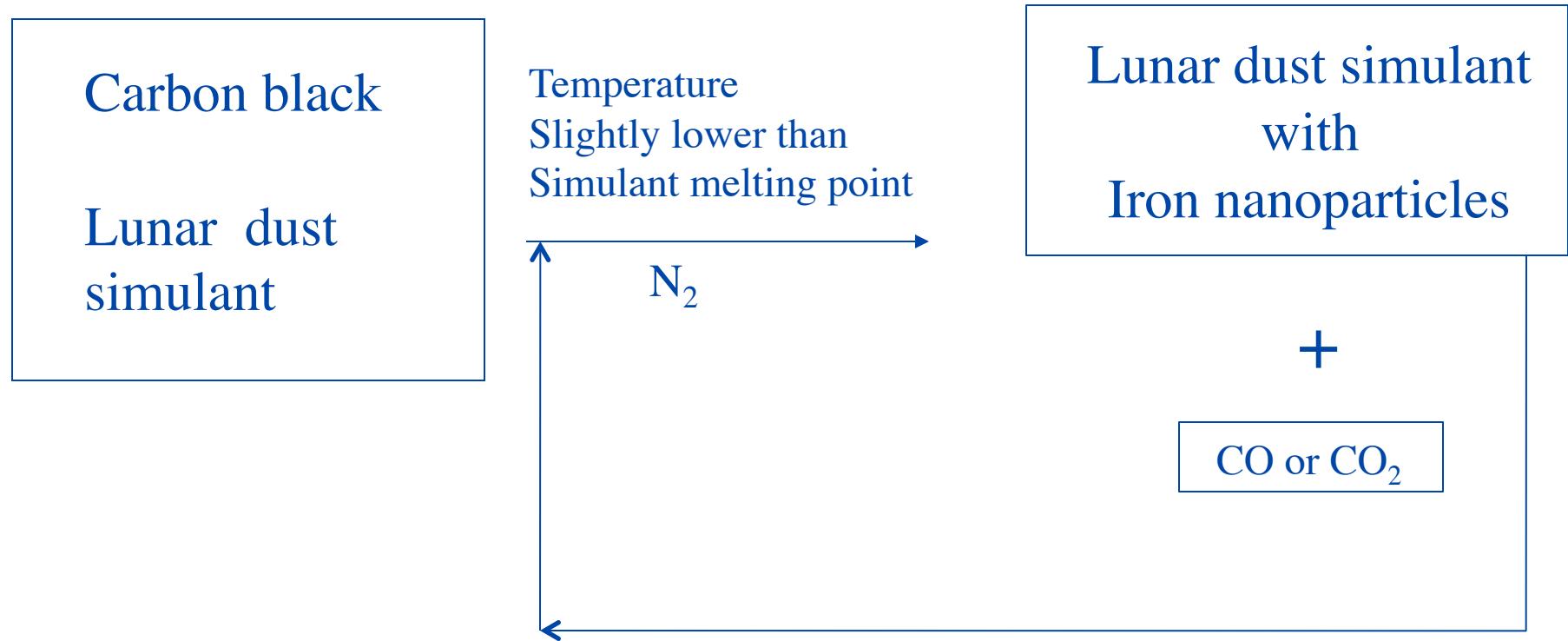




Figure 1: The process to produce simulant of lunar rigolith



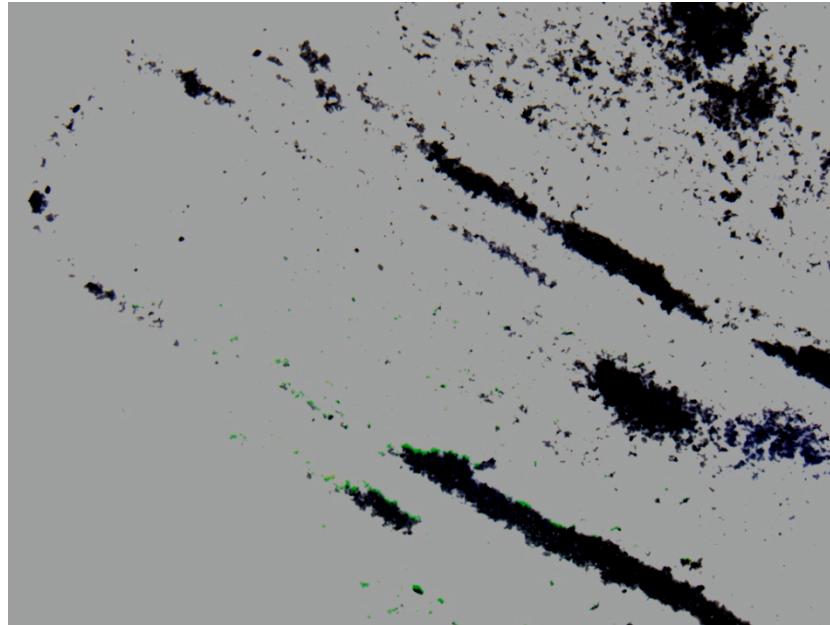
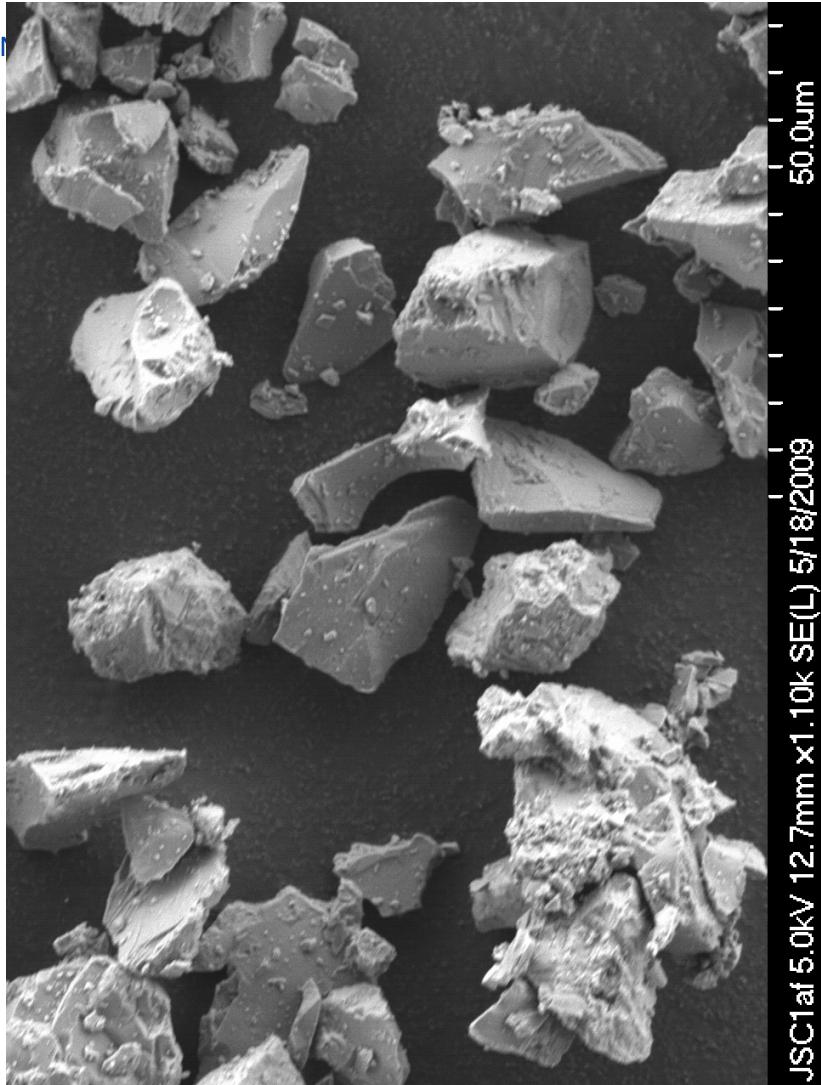
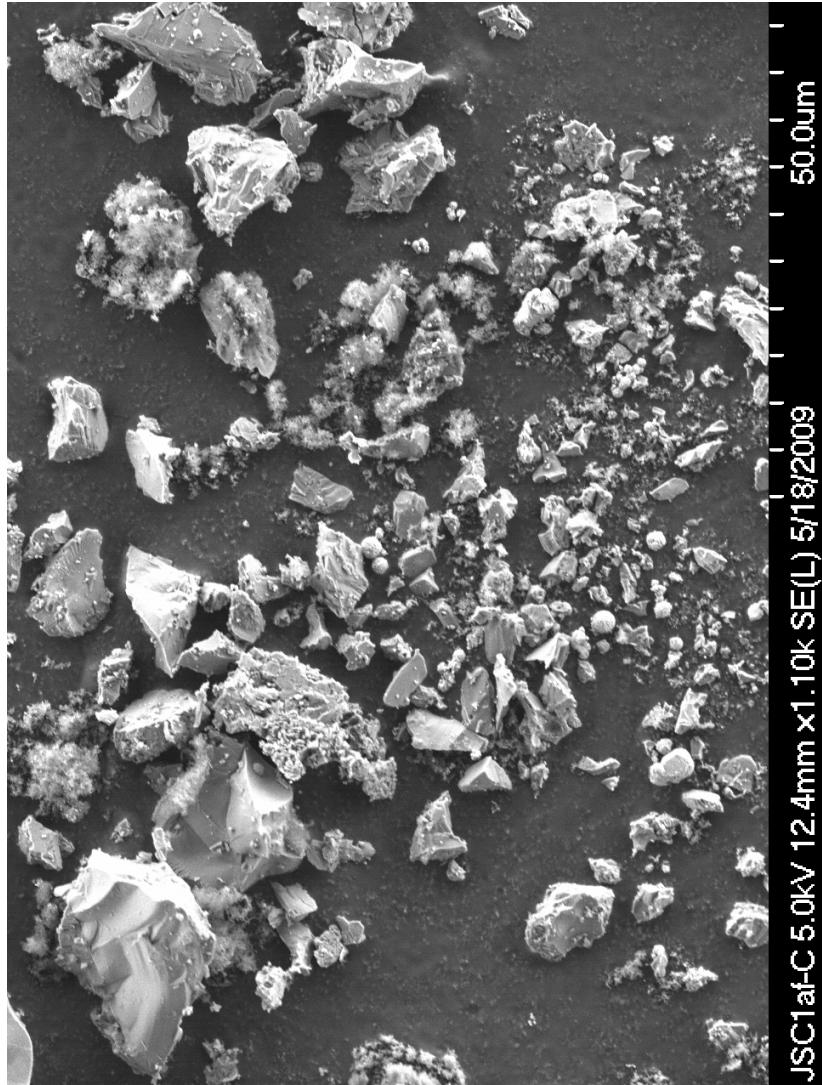


Figure 2: Ferromagnetic dust of lunar simulant lined up into the shape of a paperclip on a piece of paper. Beneath the paper is a paperclip in a magnetic field.



(a)



(b)

Figure 3 . Scanning electron micrograph of Lunar dust simulant JSC1AF (a) before and (b) after the 1050°C treatment with carbon

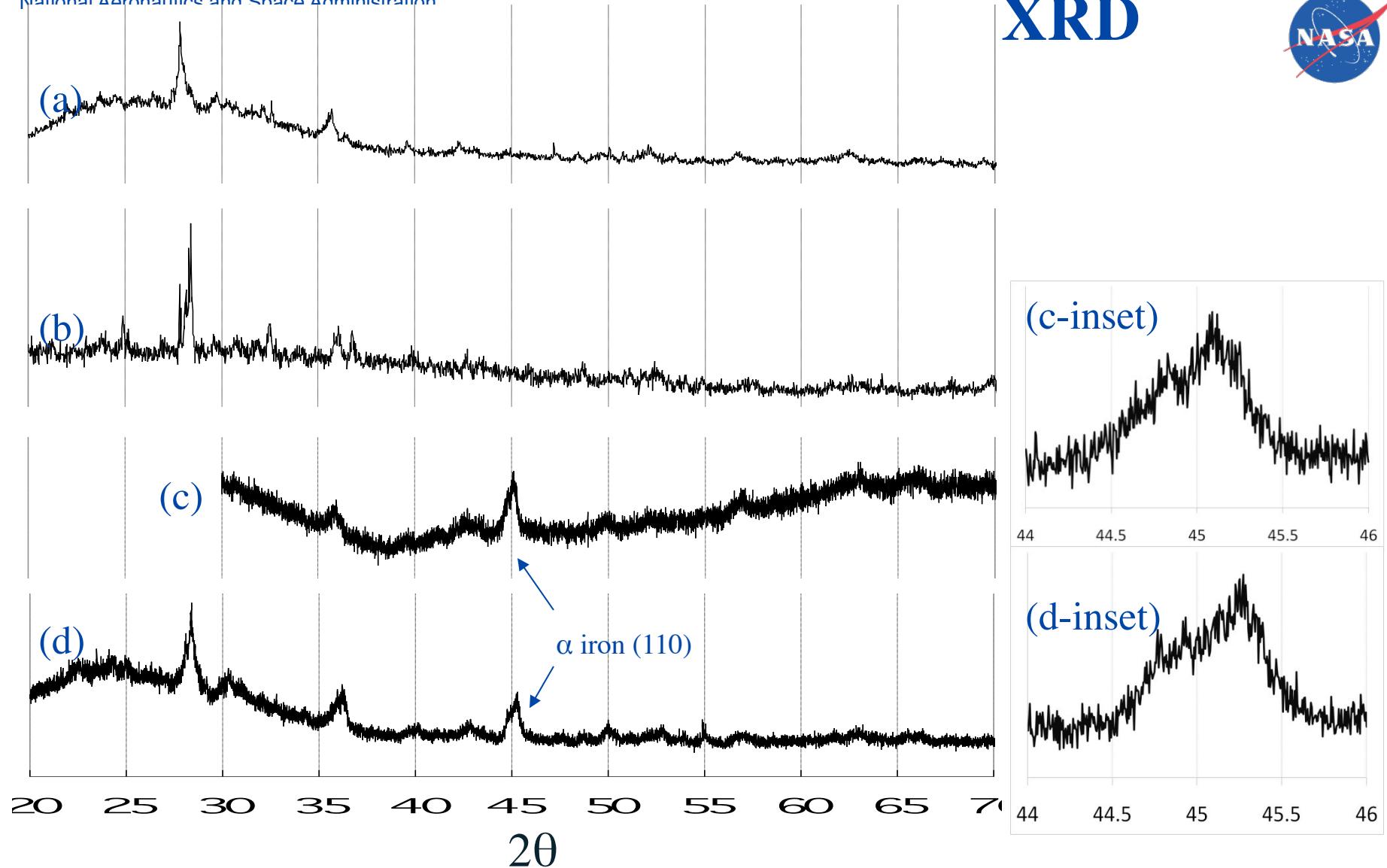


Figure 4: X ray diffraction data of reactant and product from the 1050°C reactions of carbon black and lunar dust simulant (JSC1A) (a) Reactant JSC1AF (b) Product 1 month old (c) Product 7 months old inset: α iron (110)peak (d) Product 11 months old, inset: α iron (110)peak